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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/656,033	HOUSE ET AL.
	Examiner	Art Unit	
	Chris Watt	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 February 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-36</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-36</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>05 September 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This communication is responsive to the Amendment filed 2/26/2007.

2.   Claims 1-36 are pending in this application. No claims in the instant Amendment

were added, cancelled or amended. This action is made Non-Final.

3.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

Claim Rejections - 35 USC § 103

4.   Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Planas et al. ("Planas" US Patent No. 6,112,015) in view of LeBlanc ("LeBlanc" US

Patent No. 5,570,412), Perry et al. ("Perry" US Patent No. 7,020,696) and Tonelli et al.

("Tonelli" US Patent No. 5,821,937).

Regarding independent claim 1, Planas teaches a method for maintaining (i.e.

col. 1 lines 48-51 et seq. of Planas: " The intent of the generic states is to allow network

objects which are compliant with these standards to be maintainable remotely by non-

vendor specific network management tools") and graphically displaying (i.e. col. 4 lines

58-62 et seq. of Planas: " A processor (not shown) forming part of each network

management terminal receives the network management information, processes it, and

presents it graphically on a display (not shown) with the GUI according to the invention"

) geographic (i.e. col. 6 lines 42-44 et seq. of Planas: " The grouping of elements may

be based on geographic and/or other administrative criteria, for example") information

(i.e. col. 14 lines 19-23 et seq. of Planas: "20, a flowchart is shown of the logic followed

by the GUI in updating displayed state and status information when a change in a state

or status occurs for any network object forming part of a network being graphically

represented according to the invention") regarding the location (i.e. col. 15 lines 52-55

et seq. of Planas: " For instance as new network objects are added and pop up in the

GNE's top level view, they need to be situated in an appropriate location relative to the

existing network object icons") of telecommunication cable (i.e. col. 6 lines 30-32 et

seq. of Planas: "a symbolic node icon 56 for a coaxial node with link bundle icons 60,64

connecting these elements to node icons 44, 52 respectively") and determining the

relative geographic distance from telecommunication cable to user-selected nodes (i.e.

col. 16 lines 61-62 et seq. of Planas: "21d, the operator has selected node icon 220 and

then selected "Test 1" from a "Tests" menu"), the method comprising: receiving

geographic information (i.e. col. 6 lines 60-62 et seq. of Planas: " The shape of the

container icon may be manipulated so that it conforms to specific geographic or other

administrative requirements or criteria") in a computer readable form sufficient to

generate an electronic map (i.e. col. 6 lines 62-64 et seq. of Planas: " The container

icons may be displayed transparently or translucently over a map of familiar geography

for improved recognition") of the metropolitan area (i.e. col. 17 lines 41-43 et seq. of

Planas: " A basic node icon 300 for a transport node is shown, and further identified by

its location in Toronto"), receiving vendor information in a computer readable form for at

least one vendor who owns telecommunication cable in the metropolitan area (i.e. col. 1

lines of 46-48 Planas : " Network objects are products produced by a variety of different

vendors and include nodes, links and shelf based equipment"), the vendor information

comprising: the location (i.e. col. 11 lines 62-64 et seq. of Planas: " As a result, modifier

icons should ideally be positioned in locations that would not obliterate these

distinguishing characteristics") of telecommunication cable in the metropolitan area

(i.e. col. 4 lines 17-19 et seq. of Planas: " Links connect nodes together and include

copper wire links, microwave links, satellite links, coaxial links and optical fibre links for

example"), the owner of the telecommunication cable (i.e. col. 1 lines of 46-48 et seq.

of Planas: " Network objects are products produced by a variety of different vendors and

include nodes, links and shelf based equipment") , the locations of nodes associated

with the telecommunication cable (i.e. col. 11 lines 62-64 et seq. of Planas: " As a result,

modifier icons should ideally be positioned in locations that would not obliterate these

distinguishing characteristics") and the types of nodes associated with the

telecommunication cable (i.e. col. 5 lines 52-54 et seq. of Planas: " Links between two

nodes are shown by link icons connecting the nodes and having a link type specifier

icon in the centre of the link icon"), providing a graphical user interface (i.e. col. 4 lines

58-62 et seq. of Planas: " A processor (not shown) forming part of each network

management terminal receives the network management information, processes it, and

presents it graphically on a display (not shown) with the GUI according to the invention"

) permitting the user to select (i.e. col. 19 line 63 et seq. of Planas: " The method

according to claim 1 further comprising the steps of: receiving network management

information") at least one vendor from the at least one vendors who own

telecommunication cable in the metropolitan area (i.e. col. 1 lines of 46-48 et seq. of

Planas: " Network objects are products produced by a variety of different vendors and

include nodes, links and shelf based equipment") and at least one node from the at

least one nodes of the types associated with telecommunication cable in the

metropolitan area (i.e. col. 16 lines 61-62 et seq. of Planas: "21d, the operator has

selected node icon 220 and then selected "Test 1" from a "Tests" menu"), receiving

user input (i.e. col. 19 line 63 et seq. of Planas: " The method according to claim 1

further comprising the steps of: receiving network management information") selecting

at least one of the vendors who own telecommunication cable in the metropolitan area

(i.e. col. 1 lines of 46-48 et seq. of Planas: " Network objects are products produced by

a variety of different vendors and include nodes, links and shelf based equipment"),

generating a display layer graphically illustrating (i.e. col. 3 lines 15-16 et seq. of

Planas: "4a is an example representation of a simple network using the symbols and

icons of FIGS") the metropolitan area (i.e. col. 17 lines 41-43 et seq. of Planas: " A

basic node icon 300 for a transport node is shown, and further identified by its location

in Toronto"), generating a display layer graphically illustrating the vendor information for

the telecommunication cable of each of the vendors selected by the user (i.e. col. 1

lines of 46-48 et seq. of Planas: " Network objects are products produced by a variety of

different vendors and include nodes, links and shelf based equipment") , displaying the

display layer graphically illustrating the metropolitan area (i.e. col. 6 lines 62-64 et seq.

of Planas: " The container icons may be displayed transparently or translucently over a

map of familiar geography for improved recognition"), and the display layers graphically

illustrating the vendor information for the telecommunication cable of each of the least

one vendors selected by the user (i.e. col. 1 lines of 46-48 et seq. of Planas: " Network

objects are products produced by a variety of different vendors and include nodes, links

and shelf based equipment"), receiving user input selecting at least one of the nodes in

the metropolitan area (i.e. col. 19 line 63 et seq. of Planas: " The method according to

claim 1 further comprising the steps of: receiving network management information"),

calculating the distance from each of the at least one user-selected nodes to the at least

one user-selected telecommunication cable from the metropolitan area, and displaying

the calculation results of the distance to each of the at least one user-selected nodes to

the nearest user-selected telecommunication cable (i.e. col. 15 lines 52-55 et seq. of

Planas: " For instance as new network objects are added and pop up in the GNE's top

level view, they need to be situated in an appropriate location relative to the existing

network object icons"). Planas does not teach calculation of location of and distance

between various network elements, data maintained in computer readable form, or

selection of vendors from a list of vendors related to the network.

LeBlanc teaches the calculation (i.e. col. 19 lines 44-47 et seq. of LeBlanc: " The

bands are determined by calculating the average of a certain number of data points plus

and minus two times the standard deviation of the data") of location of (i.e. col. 7 lines

48-52 et seq. of LeBlanc: " In carrying out these and other objects, features and

advantages of the present invention, a system and method for updating the location

databank is provided and is directed specifically for use in cooperation with a location

system and method"; col. 7 lines 59-63 et seq. of LeBlanc: " Each of the update centers

includes means for transmitting its own pre-calibrated location information to the

location databank") and distance between various network elements (i.e. col. 25 lines

6-8 et seq. of LeBlanc: " The location band 170 is what will be used to generate (for the

location databank) minimum and maximum distances for any valid values of any of the parameters"; col. 21 lines 14-16 et seq. of LeBlanc: " the second table will provide a predicted distance value, along with a minimum and maximum boundary") on a telecommunication network. It would have been obvious to an artisan at the time of the invention to combine the location of and distance between various network elements of LeBlanc into the graphical display of Planas. Said artisan would have been motivated to combine LeBlanc into Planas in order to create a system which provides better provide control logic for terminal authentication and location management (i.e. see col. 3 lines 47-48 et seq. of LeBlanc).

Perry teaches data maintained in computer readable form (i.e. col. 65 lines 9-10 et seq. of Perry: " Preferably, the data is maintained in binary form"; col. 75 lines 25-26 et seq. of Perry: " In one embodiment, instructions within templates are written in ASCII text to be human readable"). It would have been obvious to an artisan at the time of the invention to combine the data maintained in computer readable form taught by Perry into the graphical display of Planas as modified by LeBlanc. Said artisan would have been motivated to combine Perry into the modified Planas in the interest of efficiency, as computer readable files would be more efficient than those in a form such as ASCII (i.e. see col. 65 lines 9-10 et seq. of Perry).

Tonelli teaches selection of vendors from a list of vendors related to the network (i.e. FIG. 9 et seq. of Tonelli). It would have been obvious to an artisan at the time of the invention to combine the selection of vendors from a list as taught by Tonelli with the graphical display of Planas as modified by LeBlanc and Perry. Said artisan would have

been motivated to combine Tonelli into the modified Planas to allow for network

information to be accessed while not limited by vendor specific elements (i.e. see col. 1

line 59 et seq. of Tonelli).

Regarding dependent claim 2, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 1 wherein generating display layers graphically

illustrating the vendor information for the telecommunication cable of each of the

vendors selected by the user further comprises: generating a graphical representation

(i.e. col. 4 lines 58-62 et seq. of Planas: " A processor (not shown) forming part of each

network management terminal receives the network management information,

processes it, and presents it graphically on a display (not shown) with the GUI

according to the invention") of the geographical location of the telecommunication cable

owned by the selected vendors (i.e. col. 12 lines 15-17 et seq. of Perry: " to provide the

convenience of a network map, event aggregation/filtering, and integration with other

vendor's networking"), and generating a graphical representation (i.e. col. 4 lines 58-62

et seq. of Planas: " A processor (not shown) forming part of each network management

terminal receives the network management information, processes it, and presents it

graphically on a display (not shown) with the GUI according to the invention") of the

geographical locations of nodes associated with the telecommunication cable owned by

the selected vendors (i.e. col. 12 lines 15-17 et seq. of Perry: " to provide the

convenience of a network map, event aggregation/filtering, and integration with other

vendor's networking").

Regarding dependent claim 3, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 2 wherein generating a graphical representation of

the geographical locations of nodes further comprises generating a different symbolic

representation of each node type (i.e. col. 17 lines 19-21 et seq. of Planas: " While

particular shapes for the node and link icons have been used in the illustrated and

described examples, other shapes could be used with equal effect").

Regarding dependent claim 4, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 2 wherein generating a graphical representation of

the geographical location of the telecommunication cable owned by the selected

vendors (i.e. col. 12 lines 15-17 et seq. of Perry: " to provide the convenience of a

network map, event aggregation/filtering, and integration with other vendor's

networking") further comprises generating a different symbolic representation for the

telecommunication cable of each vendor (i.e. col. 15 lines 52-55 et seq. of Planas: " For

instance as new network objects are added and pop up in the GNE's top level view,

they need to be situated in an appropriate location relative to the existing network object

icons").

Regarding dependent claim 5, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 1 wherein receiving user input selecting at least

one of the vendors who own telecommunication cable in the metropolitan area

comprises receiving a prioritized selection of at least two vendors (i.e. col. 12 lines 15-

17 et seq. of Perry: " to provide the convenience of a network map, event

aggregation/filtering, and integration with other vendor's networking"; col. 101 lines 20-

24 et seq. of Perry: " For example, a network service provider may have a high priority

customer on a particular port and may want all errors and events (even minor ones) to

be reported to the NMS and displayed to the network manager").

Regarding dependent claim 6, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 5 wherein generating display layers graphically

illustrating the vendor information comprises generating a different graphical

representation of the geographical location of each of the telecommunication cables

owned by the at least two prioritized vendor selections of the user (i.e. col. 12 lines 15-

17 et seq. of Perry: " to provide the convenience of a network map, event

aggregation/filtering, and integration with other vendor's networking"; col. 101 lines 20-

24 et seq. of Perry: " For example, a network service provider may have a high priority

customer on a particular port and may want all errors and events (even minor ones) to

be reported to the NMS and displayed to the network manager"), and generating a

different graphical representation of the geographical locations of nodes associated with

the telecommunication cable owned by the selected vendors (i.e. col. 6 lines 32-34 et

seq. of Planas: " The node icon 56 for the coaxial node is an example of a symbolic

node icon having a different shape").

Regarding dependent claim 7, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 6 wherein generating a different graphical

representation of the geographical locations of the nodes further comprises generating

a different symbolic representation of each node type (i.e. col. 5 lines 19-20 et seq. of

Planas: " Identification symbols and numbers may be added to the basic icon to identify

the type and capacity of the node it represents").

Regarding dependent claim 8, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 1 wherein the distances are calculated from each

of the at least one user-selected nodes to the nearest of the at least one user-selected

telecommunication cables (i.e. col. 17 lines 41-43 et seq. of Planas: " A basic node icon

300 for a transport node is shown, and further identified by its location in Toronto").

Regarding dependent claim 9, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 8 wherein the calculated distances are displayed

numerically in table format and identified by the node identifier of the corresponding

node (i.e. col. 40 lines 19-23 et seq. of Perry: " Various other graphical representations

may be used, for example, bar graphs or pie charts, and instead of graphical

representations, the data may be provided in a table or other type of format").

Regarding dependent claim 10, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 8 wherein the calculated distances are displayed

as illustrated on the display layer graphically illustrating the metropolitan area (i.e. col.

11 lines 5-7 et seq. of Planas: " A node which has a primary and a backup unit is

illustrated by two node icons one of which is behind the other").

Regarding independent claim 11, Planas teaches a method for storing (i.e. col.

20 lines 55-63 et seq. of Planas: "memory for storing a unique attribute representative of

each of a plurality of base states, the attribute being unique independent of colour and

for storing a unique modifier icon representative of each of a plurality of supplementary

states, the modifier icon being unique independent of colour; wherein the processing

means displays on the display for each network object a basic icon representative of

that network object"), and graphically displaying (i.e. col. 4 lines 58-62 et seq. of

Planas: " A processor (not shown) forming part of each network management terminal

receives the network management information, processes it, and presents it graphically

on a display (not shown) with the GUI according to the invention") information (i.e. col.

14 lines 19-23 et seq. of Planas: "20, a flowchart is shown of the logic followed by the

GUI in updating displayed state and status information when a change in a state or

status occurs for any network object forming part of a network being graphically

represented according to the invention") regarding a metropolitan area high bandwidth

telecommunication network and calculating the relative geographic distance from user-

selected nodes to high bandwidth telecommunication cable (i.e. col. 2 lines 20-30 et

seq. of Planas: " According to a first broad aspect, the invention provides a processor

implemented method for displaying information relating to a telecommunications

network consisting of a plurality of network objects using a network management

terminal having a display, the information consisting of a base state for at least one of

the network objects, the method comprising the steps of: displaying on the display for

each network object a basic icon corresponding to that network object; imparting to the

display of each said at least one basic icon an attribute representative of the base state

of the corresponding network object"), the method comprising: establishing electronic

maps (i.e. col. 6 lines 62-64 et seq. of Planas: " The container icons may be displayed

transparently or translucently over a map of familiar geography for improved

recognition") of a plurality of metropolitan areas (i.e. col. 17 lines 41-43 et seq. of

Planas: " A basic node icon 300 for a transport node is shown, and further identified by

its location in Toronto"), establishing an electronic map of the high bandwidth

telecommunication cable (i.e. col. 6 lines 30-32 et seq. of Planas: "a symbolic node icon

56 for a coaxial node with link bundle icons 60,64 connecting these elements to node

icons 44, 52 respectively") owned by individual vendors in each of the plurality of

metropolitan areas (i.e. col. 1 lines of 46-48 Planas : " Network objects are products

produced by a variety of different vendors and include nodes, links and shelf based

equipment") , the maps of the high bandwidth telecommunication cable comprising the

geographical location (i.e. col. 4 lines 58-62 et seq. of Planas: " A processor (not shown)

forming part of each network management terminal receives the network management

information, processes it, and presents it graphically on a display (not shown) with the

GUI according to the invention") of the high bandwidth telecommunication cable (i.e.

col. 4 lines 17-19 et seq. of Planas: " Links connect nodes together and include copper

wire links, microwave links, satellite links, coaxial links and optical fibre links for

example") owned by that vendor (i.e. col. 1 lines of 46-48 Planas : " Network objects

are products produced by a variety of different vendors and include nodes, links and

shelf based equipment") in the metropolitan area, and the geographical location of

nodes associated with the high bandwidth telecommunication cable owned by that

vendor in the metropolitan area (i.e. col. 17 lines 41-43 et seq. of Planas: " A basic node

icon 300 for a transport node is shown, and further identified by its location in Toronto"),

displaying a list of the plurality of metropolitan areas, receiving user input selecting one

of the plurality of metropolitan areas (i.e. col. 19 line 63 et seq. of Planas: " The method

according to claim 1 further comprising the steps of: receiving network management

information"), displaying a list of vendors who own high bandwidth telecommunication

cable in the selected metropolitan area, receiving user input selecting at least one

vendor from the list of vendors who own high bandwidth telecommunication cable in the

selected metropolitan area (i.e. col. 19 line 63 et seq. of Planas: " The method

according to claim 1 further comprising the steps of: receiving network management

information"), displaying a list of nodes of the types associated with high bandwidth

telecommunication cable in the selected metropolitan area, receiving user input

selecting at least one node of the types associated with high bandwidth

telecommunication cable in the selected metropolitan area (i.e. col. 19 line 63 et seq. of

Planas: " The method according to claim 1 further comprising the steps of: receiving

network management information"), displaying the electronic map of the selected

metropolitan area (i.e. col. 6 lines 62-64 et seq. of Planas: " The container icons may be

displayed transparently or translucently over a map of familiar geography for improved

recognition"), displaying the electronic maps of the high bandwidth telecommunication

cable owned by each of the selected vendors over the map of the selected metropolitan

area, receiving user input initiating a calculation of the distance from user-selected

nodes to user-selected high bandwidth telecommunication cable in the user-selected

metropolitan area (i.e. col. 6 lines 60-62 et seq. of Planas: " The shape of the container

icon may be manipulated so that it conforms to specific geographic or other

administrative requirements or criteria"), and calculating the distance from each of the

at least one user-selected nodes of the types associated with telecommunication cable

from the metropolitan area to the at least one user-selected telecommunication cable

from the metropolitan area. Planas does not teach calculation of location of and

distance between various network elements, data maintained in computer readable

form, or selection of vendors from a list of vendors related to the network.

LeBlanc teaches the calculation (i.e. col. 19 lines 44-47 et seq. of LeBlanc: " The

bands are determined by calculating the average of a certain number of data points plus

and minus two times the standard deviation of the data") of location of (i.e. col. 7 lines

48-52 et seq. of LeBlanc: " In carrying out these and other objects, features and

advantages of the present invention, a system and method for updating the location

databank is provided and is directed specifically for use in cooperation with a location

system and method"; col. 7 lines 59-63 et seq. of LeBlanc: " Each of the update centers

includes means for transmitting its own pre-calibrated location information to the

location databank") and distance between various network elements (i.e. col. 25 lines

6-8 et seq. of LeBlanc: " The location band 170 is what will be used to generate (for the

location databank) minimum and maximum distances for any valid values of any of the

parameters"; col. 21 lines 14-16 et seq. of LeBlanc: " the second table will provide a

predicted distance value, along with a minimum and maximum boundary") on a

telecommunications network. It would have been obvious to an artisan at the time of the

invention to combine the location of and distance between various network elements of

LeBlanc into the graphical display of Planas. Said artisan would have been motivated to

combine LeBlanc into Planas in order to create a system which provides better provide

control logic for terminal authentication and location management (i.e. see col. 3 lines

47-48 et seq. of LeBlanc).

Perry teaches data maintained in computer readable form (i.e. col. 65 lines 9-10

et seq. of Perry: " Preferably, the data is maintained in binary form"; col. 75 lines 25-26

et seq. of Perry: " In one embodiment, instructions within templates are written in ASCII

text to be human readable"). It would have been obvious to an artisan at the time of the

invention to combine the data maintained in computer readable form taught by Perry

into the graphical display of Planas as modified by LeBlanc. Said artisan would have

been motivated to combine Perry into the modified Planas in the interest of efficiency,

as computer readable files would be more efficient than those in a form such as ASCII

(i.e. see col. 65 lines 9-10 et seq. of Perry). Perry further teaches specifically the use of

high bandwidth cable (i.e. col. 8 lines 33-37 et seq. of Perry: " In one embodiment, the

communication bus is a switched Fast Ethernet providing 100 Mb of dedicated

bandwidth to each processor allowing the distributed processors to exchange control

information at high frequencies").

Tonelli teaches selection of vendors from a list of vendors related to the network

(i.e. FIG. 9 et seq. of Tonelli). It would have been obvious to an artisan at the time of the

invention to combine the selection of vendors from a list as taught by Tonelli with the

graphical display of Planas as modified by LeBlanc and Perry. Said artisan would have

been motivated to combine Tonelli into the modified Planas to allow for network

information to be accessed while not limited by vendor specific elements (i.e. see col. 1

line 59 et seq. of Tonelli).

Regarding dependent claim 12, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 11, wherein displaying a list of vendors who own

high bandwidth telecommunication cable in the selected metropolitan area (i.e. col. 12

lines 15-17 et seq. of Perry: " to provide the convenience of a network map, event

aggregation/filtering, and integration with other vendor's networking"), receiving user

input selected at least one vendor from the list of vendors who own high bandwidth

telecommunication cable in the selected metropolitan area (i.e. col. 19 line 63 et seq. of

Planas: " The method according to claim 1 further comprising the steps of: receiving

network management information"), displaying the electronic map of the selected

metropolitan area, and displaying the electronic maps of the high bandwidth

telecommunication cable owned by the selected vendors over the map of the selected

metropolitan area (i.e. col. 6 lines 62-64 et seq. of Planas: " The container icons may be

displayed transparently or translucently over a map of familiar geography for improved

recognition"), occur simultaneously after receiving user input selecting one of the

plurality of metropolitan areas (i.e. col. 45 lines 8-10 et seq. of Perry: " As described

above, the dynamic bulletin boards allow a network administrator to actively monitor--

simultaneously--specific information about one or more operational network devices").

Regarding dependent claim 13, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 11, further comprising receiving user input

selecting a geographical location (i.e. col. 19 line 63 et seq. of Planas: " The method

according to claim 1 further comprising the steps of: receiving network management

information"), and displaying a graphical representative of the selected geographical

location over the map of the selected metropolitan area (i.e. col. 6 lines 62-64 et seq. of

Planas: " The container icons may be displayed transparently or translucently over a

map of familiar geography for improved recognition").

Regarding dependent claim 14, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 13, wherein receiving user input selecting a

geographical location comprises providing a cursor positionable by the user over the

map of the selected metropolitan area (i.e. col. 19 lines 39-43 et seq. of Perry: " For

example, the administrator may use a mouse to move a cursor into an empty portion of

graphic window 896b and click the right mouse button to cause a pop-up menu to

appear listing the various views available for the network device"), and receiving user

input when the cursor is positioned over the geographical location selected by the user

(i.e. col. 19 line 63 et seq. of Planas: " The method according to claim 1 further

comprising the steps of: receiving network management information").

Regarding dependent claim 15, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 13, wherein receiving user input selecting a

geographical location comprises receiving a latitude and longitude from a user (i.e. col.

17 lines 43-46 et seq. of LeBlanc: " From this information, the latitude and longitude for

this center may be calculated 164 and there may be further determined 166 in

cooperation with a location databank, the exact street addresses contained within the

bounding polygon area").

Regarding dependent claim 16, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 13, wherein receiving user input selecting a

geographical location comprises receiving a street address from a user (i.e. col. 17 lines

43-46 et seq. of LeBlanc: " From this information, the latitude and longitude for this

center may be calculated 164 and there may be further determined 166 in cooperation

with a location databank, the exact street addresses contained within the bounding

polygon area").

Regarding dependent claim 17, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 11, wherein receiving user input selecting at least

one node of the types associated with high bandwidth telecommunication cable

comprises providing a cursor positionable by the user of the map of the selected

metropolitan area (i.e. col. 19 lines 39-43 et seq. of Perry: " For example, the

administrator may use a mouse to move a cursor into an empty portion of graphic

window 896b and click the right mouse button to cause a pop-up menu to appear listing

the various views available for the network device"), and receiving user input when the

cursor is positioned over the node selected by the user (i.e. col. 19 line 63 et seq. of

Planas: " The method according to claim 1 further comprising the steps of: receiving

network management information").

Regarding dependent claim 18, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 11, wherein receiving user input selecting at least

one node of the types associated with high bandwidth telecommunication cable

comprises providing a cursor positionable by the user of the map of the selected

metropolitan area (i.e. col. 19 lines 39-43 et seq. of Perry: " For example, the

administrator may use a mouse to move a cursor into an empty portion of graphic

window 896b and click the right mouse button to cause a pop-up menu to appear listing

the various views available for the network device"), and receiving user input when the

user has created a two-point box enclosing at least one node with the cursor (i.e. col. 19

line 63 et seq. of Planas: " The method according to claim 1 further comprising the steps

of: receiving network management information").

Regarding dependent claim 19, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 11, wherein receiving user input selecting at least

one vendor from the list of vendors who own high bandwidth telecommunication cable in

the selected metropolitan area comprises receiving user input selecting a plurality of

vendors and ranking the plurality of vendors selected in ascending priority (i.e. col. 19

line 63 et seq. of Planas: " The method according to claim 1 further comprising the steps

of: receiving network management information"), and displaying the electronic maps of

the high bandwidth telecommunication cable owned by the selected vendors over the

selected metropolitan area comprises displaying the electronic maps of the high

bandwidth telecommunication cable owned by the selected vendors in ascending

prominence corresponding to the ascending priority given each selected vendor (i.e. col.

6 lines 62-64 et seq. of Planas: " The container icons may be displayed transparently or

translucently over a map of familiar geography for improved recognition").

Regarding dependent claim 20, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 11, wherein displaying the electronic maps of the

high bandwidth telecommunication cable owned by the selected vendors over the map

of the selected metropolitan area further comprises displaying a different graphical

representation of the high bandwidth telecommunication cable owned by each selected

vendor, and displaying a different graphical representation of the nodes associated with

the high bandwidth telecommunication cable owned by each selected vendor (i.e. col.

69 lines 12-17 et seq. of Perry: " access the corresponding class files from the file

system to learn how the data should be presented to a user, for example, how a

graphical user interface (GUI) should be displayed, what data and format to display, or

perhaps which one of many GUIs should be used").

Regarding dependent claim 21, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the method of claim 11, wherein displaying a different graphical

representation of the nodes associated with the high bandwidth telecommunication

cable owned by each selected vendor further comprises displaying a different symbolic

representation of each form of node in the displayed metropolitan area (i.e. col. 69 lines

12-17 et seq. of Perry: " access the corresponding class files from the file system to

learn how the data should be presented to a user, for example, how a graphical user

interface (GUI) should be displayed, what data and format to display, or perhaps which

one of many GUIs should be used").

Regarding independent claim 22, Planas teaches a computer-readable medium

containing computer-readable code embodied thereon for causing a computer to

perform a method of calculating, maintaining (i.e. col. 1 lines 48-51 et seq. of Planas: "

The intent of the generic states is to allow network objects which are compliant with

these standards to be maintainable remotely by non-vendor specific network

management tools"), and displaying (i.e. col. 4 lines 58-62 et seq. of Planas: " A

processor (not shown) forming part of each network management terminal receives the

network management information, processes it, and presents it graphically on a display

(not shown) with the GUI according to the invention") information (i.e. col. 14 lines 19-

23 et seq. of Planas: "20, a flowchart is shown of the logic followed by the GUI in

updating displayed state and status information when a change in a state or status

occurs for any network object forming part of a network being graphically represented

according to the invention") regarding the geographical (i.e. col. 6 lines 42-44 et seq. of

Planas: " The grouping of elements may be based on geographic and/or other

administrative criteria, for example") location (i.e. col. 15 lines 52-55 et seq. of Planas: "

For instance as new network objects are added and pop up in the GNE's top level view,

they need to be situated in an appropriate location relative to the existing network object

icons") of high bandwidth telecommunication cable in relation to its associated nodes

(i.e. col. 4 lines 17-19 et seq. of Planas: " Links connect nodes together and include

copper wire links, microwave links, satellite links, coaxial links and optical fibre links for

example") within a metropolitan area as a distance (i.e. col. 17 lines 41-43 et seq. of

Planas: " A basic node icon 300 for a transport node is shown, and further identified by

its location in Toronto"), the method comprising receiving and storing electronic

information for geographically mapping a plurality of metropolitan areas (i.e. col. 6 lines

60-62 et seq. of Planas: " The shape of the container icon may be manipulated so that it

conforms to specific geographic or other administrative requirements or criteria"),

receiving (i.e. col. 19 line 63 et seq. of Planas: " The method according to claim 1 further

comprising the steps of: receiving network management information") and storing

vendor information (i.e. col. 1 lines of 46-48 Planas : " Network objects are products

produced by a variety of different vendors and include nodes, links and shelf based

equipment") for each of the plurality of metropolitan areas (i.e. col. 17 lines 41-43 et

seq. of Planas: " A basic node icon 300 for a transport node is shown, and further

identified by its location in Toronto"), the vendor information comprising the identity of

the vendor (i.e. col. 1 lines of 46-48 Planas : " Network objects are products produced

by a variety of different vendors and include nodes, links and shelf based equipment"),

the location of the high bandwidth telecommunication cable owned by the vendor in

each of the plurality of metropolitan areas (i.e. col. 11 lines 62-64 et seq. of Planas: " As

a result, modifier icons should ideally be positioned in locations that would not obliterate

these distinguishing characteristics"), the location of nodes associated with the high

bandwidth telecommunication cable owned by the vendor (i.e. col. 15 lines 52-55 et

seq. of Planas: " For instance as new network objects are added and pop up in the

GNE's top level view, they need to be situated in an appropriate location relative to the

existing network object icons"), and the type of each node (i.e. col. 5 lines 52-54 et seq.

of Planas: " Links between two nodes are shown by link icons connecting the nodes and

having a link type specifier icon in the centre of the link icon"), providing a graphical

user interface that displays information to a user and receives input from a user (i.e. col.

19 line 63 et seq. of Planas: " The method according to claim 1 further comprising the

steps of: receiving network management information"), displaying a list of the plurality

of metropolitan areas, receiving user input selecting a metropolitan area (i.e. col. 19 line

63 et seq. of Planas: " The method according to claim 1 further comprising the steps of:

receiving network management information"), displaying a geographical map of the

selected metropolitan area, displaying a list of the vendors who own high bandwidth

telecommunication cable in the selected metropolitan area, receiving user input

selecting at least one vendor from the list of vendors who own high bandwidth

telecommunication cable in the selected metropolitan area (i.e. col. 19 line 63 et seq. of

Planas: " The method according to claim 1 further comprising the steps of: receiving

network management information"), displaying the location of the high bandwidth

telecommunication cable owned by the selected vendors over the geographical map of

the selected metropolitan area, receiving user input selecting at least one node of the

types associated with high bandwidth telecommunication cable in the selected area (i.e.

col. 19 line 63 et seq. of Planas: " The method according to claim 1 further comprising

the steps of: receiving network management information"), displaying the location of the

user-selected nodes associated with high bandwidth telecommunication cable over the

geographical map of the selected metropolitan area (i.e. col. 4 lines 58-62 et seq. of

Planas: " A processor (not shown) forming part of each network management terminal

receives the network management information, processes it, and presents it graphically

on a display (not shown) with the GUI according to the invention"), calculating the

distance from the at least one user-selected node to the at least one user-selected

telecommunication cable, and displaying the results of the distance calculation (i.e. col.

2 lines 20-30 et seq. of Planas: " According to a first broad aspect, the invention

provides a processor implemented method for displaying information relating to a

telecommunications network consisting of a plurality of network objects using a network

management terminal having a display, the information consisting of a base state for at

least one of the network objects, the method comprising the steps of: displaying on the

display for each network object a basic icon corresponding to that network object;

imparting to the display of each said at least one basic icon an attribute representative

of the base state of the corresponding network object"). Planas does not teach

calculation of location of and distance between various network elements, data

maintained in computer readable form, or selection of vendors from a list of vendors

related to the network.

LeBlanc teaches the calculation (i.e. col. 19 lines 44-47 et seq. of LeBlanc: " The

bands are determined by calculating the average of a certain number of data points plus

and minus two times the standard deviation of the data") of location of (i.e. col. 7 lines

48-52 et seq. of LeBlanc: " In carrying out these and other objects, features and

advantages of the present invention, a system and method for updating the location

databank is provided and is directed specifically for use in cooperation with a location

system and method"; col. 7 lines 59-63 et seq. of LeBlanc: " Each of the update centers

includes means for transmitting its own pre-calibrated location information to the

location databank") and distance between various network elements (i.e. col. 25 lines

6-8 et seq. of LeBlanc: " The location band 170 is what will be used to generate (for the

location databank) minimum and maximum distances for any valid values of any of the

parameters"; col. 21 lines 14-16 et seq. of LeBlanc: " the second table will provide a

predicted distance value, along with a minimum and maximum boundary") on a

telecommunication network. It would have been obvious to an artisan at the time of the

invention to combine the location of and distance between various network elements

taught by LeBlanc with the graphical display of Planas creating a system "which

provides the control logic for terminal authentication, location management" (col. 3 lines

47-48 of LeBlanc).

Perry teaches data maintained in computer readable form (i.e. col. 65 lines 9-10

et seq. of Perry: " Preferably, the data is maintained in binary form"; col. 75 lines 25-26

et seq. of Perry: " In one embodiment, instructions within templates are written in ASCII

text to be human readable"). It would have been obvious to an artisan at the time of the

invention to combine the data maintained in computer readable form taught by Perry

into the graphical display of Planas as modified by LeBlanc. Said artisan would have

been motivated to combine Perry into the modified Planas in the interest of efficiency,

as computer readable files would be more efficient than those in a form such as ASCII

(i.e. see col. 65 lines 9-10 et seq. of Perry).

Tonelli teaches selection of vendors from a list of vendors related to the network

(i.e. FIG. 9 et seq. of Tonelli). It would have been obvious to an artisan at the time of the

invention to combine the selection of vendors from a list as taught by Tonelli with the

graphical display of Planas as modified by LeBlanc and Perry. Said artisan would have

been motivated to combine Tonelli into the modified Planas to allow for network

information to be accessed while not limited by vendor specific elements (i.e. see col. 1

line 59 et seq. of Tonelli).

Regarding dependent claim 23, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the computer-readable medium of claim 22, wherein the at least one

distance calculated is from each of the at least one user-selected nodes to the nearest

of the at least one user-selected telecommunication cables (i.e. col. 15 lines 52-55 et

seq. of Planas: " For instance as new network objects are added and pop up in the

GNE's top level view, they need to be situated in an appropriate location relative to the

existing network object icons").

Regarding dependent claim 24, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the computer-readable medium of claim 22, wherein the method

performed by a computer executing the computer-readable code embodied on the

computer-readable medium further comprises receiving user input designating whether

to display nodes (i.e. col. 19 line 63 et seq. of Planas: " The method according to claim

1 further comprising the steps of: receiving network management information"), and if a

user inputs a designation to display nodes, displaying the nodes high bandwidth

telecommunication cable for the user-selected associated with the metropolitan area

(i.e. col. 43 line 67-col. 44 line 2 et seq. of Perry: " As a result, the administrator is able

to simultaneously view the normal format while also viewing another format").

Regarding dependent claim 25, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the computer-readable medium of claim 24, location of the high

bandwidth telecommunication cable owned by the selected vendors over the wherein

displaying the geographical map of the selected metropolitan area further comprises

displaying different graphical representations of the high bandwidth telecommunication

cable owned by each of the selected vendors (i.e. col. 69 lines 12-17 et seq. of Perry: "

access the corresponding class files from the file system to learn how the data should

be presented to a user, for example, how a graphical user interface (GUI) should be

displayed, what data and format to display, or perhaps which one of many GUIs should

be used").

Regarding dependent claim 26, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches selecting at least the computer-readable medium of claim 24, wherein

receiving user input one vendor from the list of vendors who own high bandwidth

telecommunication cable in the selected metropolitan area further comprises receiving

user input selecting at least two vendors in a priority order from highest to lowest priority

(i.e. col. 12 lines 15-17 et seq. of Perry: " to provide the convenience of a network map,

event aggregation/filtering, and integration with other vendor's networking"; col. 101

lines 20-24 et seq. of Perry: " For example, a network service provider may have a high

priority customer on a particular port and may want all errors and events (even minor

ones) to be reported to the NMS and displayed to the network manager").

Regarding dependent claim 27, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the computer-readable medium of claim 26, wherein displaying the

location of the high bandwidth telecommunication cable owned by the selected vendors

over the geographical map of the selected metropolitan area further comprises

displaying the location of the high bandwidth telecommunication cable owned by the at

least two vendors selected in a priority order in a prominence corresponding with the

vendors priority, the highest priority vendor's cable being the most prominent and the

lowest priority vendor's cable being the least prominent (i.e. col. 12 lines 15-17 et seq.

of Perry: " to provide the convenience of a network map, event aggregation/filtering, and

integration with other vendor's networking"; col. 101 lines 20-24 et seq. of Perry: " For

example, a network service provider may have a high priority customer on a particular

port and may want all errors and events (even minor ones) to be reported to the NMS

and displayed to the network manager").

Regarding dependent claim 28, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the computer-readable medium of claim 27, wherein the method

performed by a computer executing the computer-readable code embodied on the

computer-readable medium further comprises receiving user input selecting a physical

location within the selected metropolitan area (i.e. col. 19 line 63 et seq. of Planas: "

The method according to claim 1 further comprising the steps of: receiving network

management information").

Regarding dependent claim 29, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the computer-readable medium of claim 28, wherein receiving user

input selecting a physical location within the selected metropolitan area comprises

providing a user positionable cursor (i.e. col. 19 lines 39-43 et seq. of Perry: " For

example, the administrator may use a mouse to move a cursor into an empty portion of

graphic window 896b and click the right mouse button to cause a pop-up menu to

appear listing the various views available for the network device"), and receiving user

input when the cursor is positioned over the position on the display of the geographical

map of the metropolitan area corresponding to the physical location to be designated

(i.e. col. 19 line 63 et seq. of Planas: " The method according to claim 1 further

comprising the steps of: receiving network management information").

Regarding dependent claim 30, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the computer-readable medium of claim 28, wherein receiving user

input selecting a physical location within the metropolitan area comprises receiving a

latitude and longitude from the user (i.e. col. 17 lines 43-46 et seq. of LeBlanc: " From

this information, the latitude and longitude for this center may be calculated 164 and

there may be further determined 166 in cooperation with a location databank, the exact

street addresses contained within the bounding polygon area").

Regarding dependent claim 31, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the computer-readable medium of claim 28, wherein receiving user

input selecting a physical location within the metropolitan area comprises receiving a

street address from the user (i.e. col. 17 lines 43-46 et seq. of LeBlanc: " From this

information, the latitude and longitude for this center may be calculated 164 and there

may be further determined 166 in cooperation with a location databank, the exact street

addresses contained within the bounding polygon area").

Regarding dependent claim 32, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the computer-readable medium of claim 22, wherein the method

performed by a computer executing the computer-readable code embodied on the

computer-readable medium further comprises displaying the geographic location of the

node and high bandwidth telecommunication cable between which the distance was

calculated on the electronic map of the selected metropolitan area (i.e. col. 2 lines 20-30

et seq. of Planas: " According to a first broad aspect, the invention provides a processor

implemented method for displaying information relating to a telecommunications

network consisting of a plurality of network objects using a network management

terminal having a display, the information consisting of a base state for at least one of

the network objects, the method comprising the steps of: displaying on the display for

each network object a basic icon corresponding to that network object; imparting to the

display of each said at least one basic icon an attribute representative of the base state

of the corresponding network object").

Regarding dependent claim 33, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the computer-readable medium of claim 32, wherein receiving user

input selecting the node to cable distance calculation result for display of the selected

geographical location over the map of the selected metropolitan area comprises

providing a user positionable curser (i.e. col. 19 lines 39-43 et seq. of Perry: " For

example, the administrator may use a mouse to move a cursor into an empty portion of

graphic window 896b and click the right mouse button to cause a pop-up menu to

appear listing the various views available for the network device"), and receiving user

input when the curser is positioned over the position of the calculation results display

corresponding to the physical location of the geographical map of the metropolitan area

to be designated (i.e. col. 19 line 63 et seq. of Planas: " The method according to claim

1 further comprising the steps of: receiving network management information").

Regarding dependent claim 34, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the computer-readable medium of claim 32, wherein receiving user

input selecting the node to cable distance calculation result for display of the selected

geographical location over the map of the selected metropolitan area comprises

receiving a latitude and longitude of the corresponding node from the user (i.e. col. 17

lines 43-46 et seq. of LeBlanc: " From this information, the latitude and longitude for this

center may be calculated 164 and there may be further determined 166 in cooperation

with a location databank, the exact street addresses contained within the bounding

polygon area").

Regarding dependent claim 35, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the computer-readable medium of claim 32, wherein receiving user

input selecting the node to cable distance calculation result for display of the selected

geographical location over the map of the selected metropolitan area comprises

receiving a street address of the corresponding node from the user (i.e. col. 17 lines 43-

46 et seq. of LeBlanc: " From this information, the latitude and longitude for this center

may be calculated 164 and there may be further determined 166 in cooperation with a

location databank, the exact street addresses contained within the bounding polygon

area").

Regarding dependent claim 36, Planas, in combination with LeBlanc, Perry and

Tonelli, teaches the computer-readable medium of claim 32, wherein receiving user

input selecting the node to cable distance calculation result for display of the selected

geographical location over the map of the selected metropolitan area comprises

receiving a node identifying name (i.e. col. 19 line 63 et seq. of Planas: " The method

according to claim 1 further comprising the steps of: receiving network management

information").

Response to Arguments

Applicant's arguments with respect to claims 1-36 have been considered but are

moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chris Watt whose telephone number is (571) 270-1046.

The examiner can normally be reached on Monday-Thursday 6:30-4:00 Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kristine L. Kincaid can be reached on (571) 272-4063. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chris A. Watt/   May 8, 2007

CAW

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